

REMARKS

The Office Action dated April 28, 2009, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1, 12, and 15-19, have been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter is added. Applicants submit claims 1-28 for consideration.

Claim 4 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants appreciatively acknowledges the consideration of claim 4.

Claims 1-7 were rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter. In support of this rejection, the Office Action alleged that claims 1-7 are not tied to another statutory class (such as an apparatus) and do not transform any underlying subject matter to a different state or thing. As indicated above, claim 1 recites that the establishing, processing, calculating, and using are performed by a controller, which is a particular machine (specification, page 7, lines 19-25). Claims 1-7 being in compliance with U.S. patent practice, withdrawal of this rejection is therefore respectfully requested.

Claims 1-3 and 5-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakai (U.S. 7,197,303) in view of Fisher (U.S. 5,528,596). The Office Action

asserted that the combination of Sakai and Fisher discloses all of the limitations of the rejected claims. Applicants respectfully assert that none of claims 1-3 and 5-28 is obvious under 35 U.S.C. § 103(a).

Claim 1, upon which claims 2-7 and 14 depend, recites a method that comprises establishing, by a base station controller, a radio channel candidate, and processing, by the base station controller, the radio channel candidate with potentially interfering signals. The method also comprises calculating a carrier to interference ratio for a selected carrier frequency of the radio channel candidate and the potentially interfering signals, and calculating a dominant interference ratio being the ratio of a signal level of a strongest potentially interfering signal with respect to a sum of signal levels of other potentially interfering signals. The method further comprises using, by the base station controller, a criteria based on the dominant interference ratio in a channel selection process for selecting a channel for the connection to be established.

Claims 8, upon which claims 9, 11 and 15 depend, recites an apparatus that comprises an establisher configured to establish a radio channel candidate. A first calculator is configured to process the radio channel candidate with potentially interfering signals and to calculate a carrier to interference ratio based on a selected carrier frequency of the radio channel candidate and potentially interfering signals. A second calculator is configured to calculate a dominant interference ratio being a ratio of a signal level of a strongest potentially interfering signal with respect to a sum of the signal levels of other potentially interfering signals. Further still, the apparatus comprises a selector

configured to implement a selection process for selecting a channel for a connection to be established using criteria based on the dominant interference ratio.

Claim 12, upon which claim 13 depends, recites a system that comprises a plurality of stations. At least some of the stations comprise an establisher configured to establish a radio channel candidate, and a first calculator configured to process the radio channel candidate with potentially interfering signals and to calculate a carrier to interference ratio based on a selected carrier frequency of the radio channel candidate and potentially interfering signals. At least some of the stations also comprise a second calculator configured to calculate a dominant interference ratio being a ratio of a signal level of a strongest potentially interfering signal with respect to a sum of the signal levels of other potentially interfering signals, and a selector configured to implement a selection process for selecting a channel for a connection to be established using criteria based on the dominant interference ratio.

Claim 16, upon which claims 17-20 depend, recites an apparatus that comprises establishing means for establishing a radio channel candidate, and means for processing the radio channel candidate with potentially interfering signals and calculating a carrier to interference ratio based on a selected carrier frequency of the radio channel candidate and potentially interfering signals. A means for calculating a dominant interference ratio being a ratio of a signal level of a strongest potentially interfering signal with respect to a sum of the signal levels of other potentially interfering signals. The apparatus further

comprises means for implementing a selection process for selecting a channel for a connection to be established using criteria based on the dominant interference ratio.

Claim 21, upon which claims 22-28 depend, recites a computer program embodied on a computer-readable medium. The computer program is configured to control a processor to perform operations comprising establishing a radio channel candidate, processing the radio channel candidate with potentially interfering signals, and calculating a carrier to interference ratio for a selected carrier frequency of the radio channel candidate and the potentially interfering signals. The operations further comprise calculating at least one dominant interference ratio being the ratio of a signal level of a strongest potentially interfering signal with respect to a sum of signal levels of other potentially interfering signals, and using a criteria based on the dominant interference ratio in a channel selection process for selecting a channel for the connection to be established.

Each of claims 1-3 and 5-28 recites limitations that are not disclosed or suggested by a combination of Sakai and Fisher.

Sakai discloses a cellular communication system and method for interference monitoring. In Sakai, a cellular communication system includes a cell station and a maintenance terminal. The cell station provides a communication service for a personal station, and executes continuous monitoring of an interfering wave during a period to produce interference monitor data representative of a property of the interfering wave. The maintenance terminal produces an interference profile based on the property.

Fisher discloses a telecommunications system. In Fisher, a sequence is transmitted from an additional outstation to a base station at a level below a noise sensitivity of a receiver of the base station. The sequence is detected at the basestation and its phase is discriminated. From the discriminated phase, the loop delay to the additional outstation is determined and the outstation is instructed to realign its transmission accordingly. The sequence and its phases are detected by a correlation process.

However, a combination of Sakai and Fisher does not disclose or suggest all the limitations of any of claims 1-3 and 5-28. For instance, a combination of Sakai and Fisher does not disclose or suggest “calculating, by the base station controller, at least one dominant interference ratio being the ratio of a signal level of a strongest potentially interfering signal with respect to a sum of signal levels of other potentially interfering signals,” as recited in claim 1, and as similarly recited in claims 8, 12, 16, and 21.

On page 4, the Office Action correctly states that Sakai fails to disclose or suggest these limitations. Fisher also fails to disclose or suggest these limitations. Instead, Fisher discloses a method for marshalling an outstation to normal, steady-state behavior (Fisher, Figure 3). Fisher does not discuss, either explicitly or implicitly, a dominant interference ratio that is a ratio of a signal level of a strongest potentially interfering signal with respect to a sum of signal levels of other potentially interfering signals. Rather, Fisher merely discusses a dominant noise to signal ratio. Fisher does not discuss *potentially* interfering signals, let alone a *strongest* potentially interfering signal and *other* potentially

interfering signals. Further, Fisher does not discuss a sum of signal levels of other potentially interfering signals, not to mention a ratio of a signal level of a strongest potentially interfering signal with respect to such a sum.

On page 9, the Office Action essentially alleges that because the phrase “originally dominant noise to signal ratio” includes the terms “dominant noise,” Fisher inherently discloses “calculating, by the base station controller, at least one dominant interference ratio being the ratio of a signal level of a strongest potentially interfering signal with respect to a sum of signal levels of other potentially interfering signals,” as recited in the claims. Applicants respectfully assert that this position is incorrect. The foregoing limitations recite a dominant interference *ratio*, not just a dominant noise. Additionally, Fisher does not discuss any *potentially* interfering signals, a way to determine a *strongest* potentially interfering signal, or a reason to *sum* signal levels of *other* potentially interfering signals. Consequently, the Office Action is incorrect in asserting that the dominant noise mentioned in Fisher is actually a ratio of a signal level of a strongest potentially interfering signal with respect to a sum of signal levels of other potentially interfering signals, as recited in the claims.

Additionally, as a combination of Sakai and Fisher fails to disclose or suggest “calculating, by the base station controller, at least one dominant interference ratio being the ratio of a signal level of a strongest potentially interfering signal with respect to a sum of signal levels of other potentially interfering signals,” it would be impossible for the combination of Sakai and Fisher to disclose or suggest “using, by the controller, a criteria

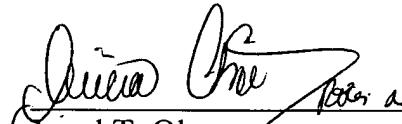
based on the dominant interference ratio in a channel selection process for selecting a channel for the connection to be established,” as is also recited in claim 1, and similarly in claims 8, 12, 16, and 21.

Accordingly, a combination of Sakai and Fisher fails to disclose or suggest all the limitations of claims 1, 8, 12, 16, and 21. Similarly, a combination of Sakai and Fisher fails to disclose or suggest all the limitations of claims 2-3, 5-7, 9-11, 13-15, 17-20, and 22-28, for their dependence from claims 1, 8, 12, 16, and 21, and for the limitations recited therein. Consequently, none of claims 1-28 are obvious under 35 U.S.C. § 103(a). Applicants respectfully request, therefore, that this rejection be withdrawn.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants’ undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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